



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,406	02/04/2004	Tomio Kumamoto	0229-0795P	2734
2292 7590 10/07/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER HUNTER, ALVIN A				
ART UNIT		PAPER NUMBER		
3711				
NOTIFICATION DATE		DELIVERY MODE		
10/07/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/770,406

**Applicant(s)**

KUMAMOTO, TOMIO

**Examiner**

ALVIN A. HUNTER

**Art Unit**

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 12-24 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 16-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (US 6623378) in view of Chen (USPN 6645086), Murphy et al. (USPN 6332847), Robertson (USPN 1269745), and Kobayashi (JP 06-19088).

Regarding claim 1, Beach et al. discloses a hollow golf club head having a face portion whose front face defines a club face, a crown portion, a sole portion, a side portion between the crown and sole portions, and a hosel portion, the club head comprises a metal component made of a metal material and a resin component made of a fiber reinforced resin wherein the resin component comprises a crown plate and a side plate forming at least a part of the crown and side portions provided with an opening for accommodating a metal component comprising a face plate forming at least a part of the face portion and a sole plate forming at least a part of the sole portion. The resin component is provided with an opening to expose the back face of the face plate to the hollow of the club head and has a flange for supporting only the edge of the metal component. Beach et al. also shows the width of the face plate in the toe-heel direction decreasing in a direction toward a lower edge of the face plate and the face plate and

the sole plate attached at the lower edge of the face plate. Beach et al. notes the hosel attached to the metal component but does not limit the hosel to be connected at the striking face. Beach et al. does not show the sole plate width decreasing toward the face plate. Chen discloses a club head having a metal part and a resin part wherein the metal part comprises face and sole plates wherein the sole plate is shown decreasing in width toward the lower edge of the face plate. Chen discloses the face plate/sole plate combination as improving durability in which Beach et al. also notes based on the background of the invention. One having ordinary skill in the art would have found it obvious to have the width of the sole plate of any relationship so long as the durability of the club head is improved. Murphy et al. discloses a hollow clubhead with a hosel portion includes a tubular part into which a club shaft is inserted wherein the tubular part being integrally or separately formed with the metal component extending upwardly from the sole plate and being connected to the metal component only at the sole. Murphy et al. specifically notes that it is known to have the hosel connected integrally with the body of the club head for structural integrity and thus the goal of attaching the hosel to solely the sole plate is to reduce unwanted weight while maintaining structural integrity (See Background on the invention). One having ordinary skill in the art would have found it obvious to have the hosel of Beach et al. connected to only the sole plate, as taught by Murphy et al., in order to remove unwanted weight while maintaining structural integrity. Beach et al. does not disclose the sole varying in thickness. Robertson discloses a club head having a sole plate in which the sole plate is thinnest at the front of the club head and thickest at the rear of the club head. Robertson notes

that the varying thickness shifts the weight of the club head. Though Robertson does not disclose explicitly the dimensions, it does disclose the effect of the varying thickness. It is further noted that applicant does not disclose the criticality of why the explicit dimension are critical in order to attain the invention, But disclose that the thickness can be varying to shift the center of gravity, i.e. the weight of the club head. One having ordinary skill in the art would have found it obvious to have the sole plate of Beach et al. vary in thickness, as taught by Robertson, in order to shift the weight of the club head to the position desired by the user. Kobayashi et al. discloses a club head having a plurality of slots in the front end of the sole plate in order to increasing flying distance (repulsion). One having ordinary skill in the art would have found it obvious to place slots along the front end of the sole, as taught by Kobayashi et al., in order to increase the repulsion of the club head.

Regarding claim 2, see the above regarding claim 1.

Regarding claim 3, see the above regarding claim 1.

Regarding claim 4, see the above regarding claim 1.

Regarding claim 5, see the above regarding claim 1.

Regarding claim 6, see the above regarding claim 1.

Regarding claim 7, see the above regarding claim 1

Regarding claim 16, Applicant does not disclose why it is critical for the sole plate to occupy almost the entirety of the sole portion in order to attain the invention. Beach et al. discloses the sole plate accounting for a part of the sole portion and Chen and Murphy et al. discloses the sole plate accounting the almost the entirety of the sole

portion. Being that the resin component is made of a lighter material in both Beach et al., Chen, and Murphy et al., one skilled in the art would drawn from the two references that increasing area of the sole plate made of a heavier material would shift the weight of the club head further downward. One having ordinary skill in the art would have found it obvious to have the sole plate of any size so long as the weight of the club head is shifted to that desired by the user.

Regarding claim 17, see the above regarding claim 1.

Regarding claim 18, see the above regarding claim 1.

Regarding claim 19, see the above regarding claim 1.

Regarding claim 20, see the above regarding claim 1.

Regarding claim 24, see the above regarding claim 16.

Claims 13-15 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (US 6623378) in view of Chen (USPN 6645086), Murphy et al. (USPN 6332847), Robertson (USPN 1269745), and Kobayashi (JP 06-19088) further in view of Yamaguchi (JP 09-253242).

Regarding claim 13, Beach et al. in view of Chen, Murphy et al., Robertson, and Kobayashi do not disclose the center of gravity depth or sweet spot height. Yamaguchi et al. discloses a club head having a specific gravity depth of 25 to 50mm (See Entire document). Yamaguchi et al. also discloses a club head where in the sweet spot is about 18.5mm or less based on the height of the club face because the center of gravity is shown to occur at a distance which is at about the halfway point of the face's height

(See Paragraph 0011 and Figures 1 and 8). One having ordinary skill in the art would have found it obvious for Beach et al. in view of Chen, Murphy et al.,

Robertson, and Kobayashi to have a specific gravity depth and sweet spot height of that taught by Yamaguchi in order to improve engine performance.

Regarding claim 14, see the above regarding claim 13.

Regarding claim 15, see the above regarding claim 13.

Regarding claim 21, see the above regarding claim 13.

Regarding claim 22, see the above regarding claim 13.

Regarding claim 23, see the above regarding claim 13.

Claims 12 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (US 6623378) in view of Kobayashi (JP 06-19088).

Regarding claim 12, Beach et al. discloses a hollow golf club head having a face portion whose front face defines a club face, a crown portion, a sole portion, a side portion between the crown and sole portions, and a hosel portion, the club head comprises a metal component made of a metal material and a resin component made of a fiber reinforced resin wherein the resin component comprises a crown plate and a side plate forming at least a part of the crown and side portions provided with an opening for accommodating a metal component comprising a face plate forming at least a part of the face portion and a sole plate forming at least a part of the sole portion. The resin component is provided with an opening to expose the back face of the face plate to the hollow of the club head and has a flange for supporting only the edge of the metal component. Beach et al. does not disclose slot in the sole near the front end of the sole

plate. Kobayashi et al. discloses a club head having a plurality of slots in the front end of the sole plate in order to increasing flying distance (repulsion). One having ordinary skill in the art would have found it obvious to place slots along the front end of the sole, as taught by Kobayashi et al., in order to increase the repulsion of the club head.

Regarding claim 17, see the above regarding claim 1.

Regarding claim 18, see the above regarding claim 1.

Regarding claim 19, see the above regarding claim 1.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al. (US 6623378) in view of Kobayash (JP 06-19088) further in view of Yamaguchi (JP 09-253242).

Regarding claims 21-23, Beach et al. in view of Kobayashi do not disclose the center of gravity depth or sweet spot height. Yamaguchi et al. discloses a club head having a specific gravity depth of 25 to 50mm (See Entire document). Yamaguchi et al. also discloses a club head where in the sweet spot is about 18.5mm or less based on the height of the club face because the center of gravity is shown to occur at a distance which is at about the halfway point of the face's height (See Paragraph 0011 and Figures 1 and 8). One having ordinary skill in the art would have found it obvious for Beach et al. in view of Kobayashi to have a specific gravity depth and sweet spot height of that taught by Yamaguchi in order to improve engine performance.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7 and 12-24 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN A. HUNTER whose telephone number is (571)272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/A. A. H./

Examiner, Art Unit 3711

/Gene Kim/

Supervisory Patent Examiner, Art Unit 3711